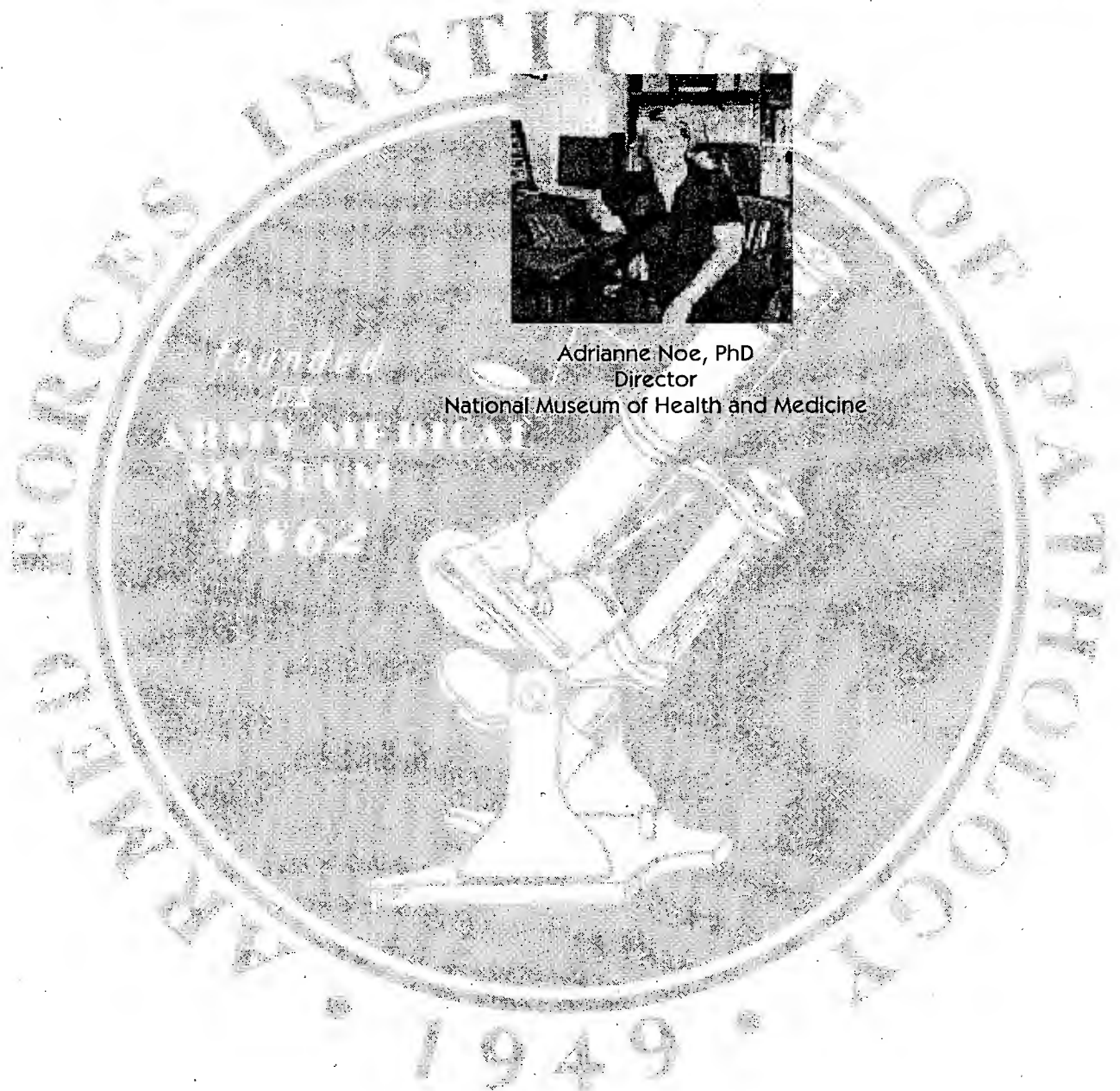


NATIONAL MUSEUM OF HEALTH AND MEDICINE





Adrienne Noe, PhD
Director
Date of Appointment—September 1995

NATIONAL MUSEUM OF HEALTH AND MEDICINE

STAFF

Donna R. White, Administrator
Steven Solomon, Public Affairs Officer
Theresa Butler, Staff Assistant
Susan A. Martin, Public Affairs Assistant
Maurice Young, Special Events and Facilities Manager
Shelly Currie, Visitor Services Representative
Melba Stewart, Visitor Services Representative

IMPACT

The NMHM promotes the understanding of medicine, past, present, and future, with a special emphasis on American military medicine. It inspires interest in personal and public health. As the nation's museum of health and medicine since 1862, we aggressively identify, collect, and preserve important resources to achieve a broad agenda of innovative exhibitions, educational programs, and scientific, historical and medical investigations.

To achieve this, we promote the responsible use of the nation's National Historic Landmark collection by continuing to catalog the collections, to record detailed information about the holdings and to edit record to make databases available for the Internet, which allow the collection to be more accessible to researchers. We cultivate ties with professional medical societies and with the Department of Defense to assist in collecting artifacts significant to the history of the practice of medicine and the evolution of medical technology, emphasizing military medicine. Finally, we collect, preserve and interpret modern examples of significant medical technology to document the history of the practice of military medicine and the evolution of medical technology to ensure the continued development of the National Museum of Health and Medicine, AFIP, as a Department of Defense asset and as a national and international resource for the military medical community, professional health care workers and the general public.

In so doing, we emphasize the Museum's focus on critical public and military health issues, the importance of the Museum as a bridge between biomedicine and the general public, the Museum's role in helping to recruit the health professionals of tomorrow, and the Museum's research programs in medical medicine, medical imaging, and other areas.

The Museum is organized into distinct areas: Office of the Director, the Department of Public Programs and Exhibitions, the Department of Collections and the Research Collections Department.

FACILITIES AND SPECIAL EVENTS

The Museum's Facilities and Special Events supports the National Museum of Health and Medicine (NMHM) in the following areas: physical security, storage, movement, maintenance; repair and accountability of materials, housekeeping; exhibit upkeep and maintenance; waste collection and disposal, and notifies the Provost Marshal of Museum visitation on to the Walter Reed Army Medical Post. This Department serves as NMHM liaison with the AFIP

Office of Safety Management. This Department also maintains an inventory of all hazardous chemicals located within the Museum, serves as a member of many safety-related committees, and investigates all facilities safety issues concerning staff and visitors.

Special Events supported the NMHM, the AFIP, WRAMC, and the surrounding community by hosting and scheduling events such as: The National Counsel of Negro Women's Annual Black Family Reunion kick-off reception, WRAMC's Medical Management of Chemical and Biological Casualties Training Course, C. L. Davis Pathology Course, Medical Effects of Ionization Radiation Course, WRAMC-sponsored events and conferences, the AFIP Department of Medical Education's *Medical Education Course* and the annual Ash Lecture. It has written and updated Standard Operating Procedures for Museum meetings and receptions that are given to the contact person responsible for hosting an event at the museum. The office staffs and secures each event and provides lists of Department of Defense certified specialty caterers who are bonded and familiar with the policies and procedures of the Museum. The office also supports presenters with their audio/visual needs.

PUBLIC AFFAIRS

IMPACT

The Museum increased its media presence, continued marketing efforts and strengthened relationships within the business, museum, and tourism communities to increase awareness of the Museum throughout the Washington DC metropolitan area, and among tourism and military audiences.

The Museum maintains a relationship and cultivates ties with as many area grassroots and cultural-based organizations as possible in order to better position itself as a significant historical, community, and cultural attraction. The NMHM remained an active member of the Cultural Tourism DC, a consortium of more than 80 cultural and community organizations in Washington, DC with a common goal to strengthen the image and the economy of the District of Columbia by engaging visitors in the diverse heritage of the city beyond the National Mall and monuments. Through the CTDC, the Museum received prominent recognition in its publication providing an inventory of all DC cultural attractions by neighborhood and theme. The Museum benefits from other efforts organized through the CTDC, such as collaborative marketing materials, a joint product-licensing program, and a neighborhood heritage trail tour along the Georgia Avenue corridor. The Museum also increased its ties with the DC Convention and Visitors Association, the District of Columbia Chamber of Commerce, and the Washington, DC Convention and Tourism Corporation. The Museum remained a designated site on the Civil War Discovery Trail, which was named 1 of 16 National Millennium Trails in the United States by the White House. As a result, the Museum received recognition in marketing and promotional materials produced by the Civil War Trust at no cost.

The Museum responded throughout the year to hundreds of requests for information or assistance received by email, telephone, and mail from the general public.

Marketing

The Museum placed an emphasis on promoting programs and workshops to the local community to raise awareness of educational offerings and to increase program attendance. Specially promoted within the internal WRAMC and AFIP community as well as to the public were the monthly health fairs held at the Museum, including National Cataract Awareness Month Program, Prostate Health Month, National Breast Cancer Awareness Month, American Diabetes Month, and World AIDS Day.

Print advertisements for the Museum and its exhibits and programs appeared in:

- *Best Bets* (annual circulation: 750,000) distributed in the Washington DC metro area to Marts/Gray Line Tour riders, 65 hotels, DC and VA visitor centers, etc., and
- *Museums Washington Magazine* (quarterly circulation: 150,000) distributed to concierges and in rooms at more than 80 hotels in the Washington, DC area.

As an element of the AFIP, the Museum also reached the local military community through publication of print advertisements in the nine newspapers of *Comprint Military Publications* that support are distributed at the government installations within the National Capital region: *Pentagram* (weekly circulation: 27,000); *The Beam* (weekly circulation: 15,000); *The Journal* (weekly circulation: 10,000); *Henderson Hall News* (weekly circulation: 5,500); *Gazette* (weekly circulation: 37,000); *Stripe* (weekly circulation: 10,000); *Standard* (weekly circulation: 6,000); *Trident* (weekly circulation: 11,000); and *Sea Services Weekly* (weekly circulation: 10,000), reaching a combined circulation of more than 130,000.

A special effort was made during 2003 to promote "Battlefield Surgery 101: From the Civil War to Vietnam." Drawn exclusively from the Museum's historical archives and historical collections, the exhibit presents highlights of the evolution of military surgical activities over the last 140 years through a selection of photographs and 19th- and 20th- century artifacts. It is running indefinitely. There was significant coverage following the exhibit's grand opening gala, where the featured guest speaker was Richard Ursone, BG, USA, Assistant Surgeon General for Force Protection, US Army, Chief, Medical Service Corps, US Army Medical Command. The Scripps Howard News Service distributed a 1,000-word story and six images from the exhibit that was used by more than a dozen newspapers and television stations across the country. Ads were also printed in *Military Medicine: International Journal of AMSUS* and *Comprint Military Publications*.

Media Coverage

The Museum increased its writing and distribution of press releases to the media in 2003, resulting in increased media exposure. More than 325 stories and newsbrief items were printed in 2003, in publications with a combined circulation of more than 25 million. This coverage appeared in local, national, and international publications, as well as on TV and radio stations, the most notable being a major Scripps- Howard News Service feature article and a major feature story in the *New York Times*.

Some highlights:

"From the blood-soaked farm fields of the American Civil War to the perilous roads of Iraq, for many soldiers life or death has been decided under a tent surrounded by battlefield surgeons. A new exhibit at the National Museum of Health and Medicine shows how battlefield surgery has both changed and remained much the same during the past 140 years. The museum itself was a product of the Civil War, as Army surgeon general Dr. William Hammond ordered that photographs of patients and procedures, as well as bullets and preserved bone and tissue samples, be collected to help evaluate and educate future battlefield doctors. Today, the museum is part of the Armed Forces Institute of Pathology located on the campus of Walter Reed Army Medical Center. It holds one of the world's largest repositories of medical artifacts. Central to the exhibit, on display indefinitely, is a collection of more than 100 photographs culled from a collection of tens of thousands depicting medics, forward aid stations and military hospitals in action. "There was no criterion in selecting the photos other than that it was an arresting image that helps tell the story of military surgery," said Mike Rhode, archivist of the museum's historical archives. "The best photos are very gripping." Despite their documentary nature, most of the photos in "Battlefield Surgery 101: From the Civil War to Vietnam" are relatively bloodless, but there are some jarring color images of a lacerated liver and a leg destroyed by a mine. "We are a medical museum and we can display things that others can't," said Jim Connor, the assistant director of collections and co-curator of the display with Rhode. "The Smithsonian can't present the things that we do, and we believe this exhibit will help the public understand the challenges faced by those in harm's way and by those who care for them." Although the survivors of battles have always tried to give comfort to wounded comrades, Connor said organized care for the wounded didn't begin until the Civil War. Although today's medevac helicopters and armored vans are more sophisticated than the horse-drawn covered wagons of that era, the organization of battlefield medicine was much the same from Chancellorsville to Khe San. "As you walk around the room and look at the photographs of stretchers over the years, you notice they're basically unchanged since the Civil War," Connor said. "If it ain't broke, they don't try to fix it." The display _ along with other long-term exhibits specific to Civil War and Korean War medicine _ also dispels some of the popular myths about battlefield operations. For instance, ether, not biting of bullets or massive doses of whiskey, was the common form of anesthetic for both the Union and Confederate armies and later..."

— *Scripps Howard News Service, December 23, 2003*

"With a body count to beat "The Sopranos" and enough post mortem deduction to impress the staff of "CSI," the History Channel cashes in on viewer's fascination of all things morbid with "The Day They Died." A two-hour death fest, "The Day They Died" is a fairly sensational special that isn't above showing sloshing buckets of blood. But it's all in the name of history and education — this is trivia geek heaven with tantalizing gory details thrown in for fun. The question here, as well as the promotional pitch, is whether famous historical figures go out with a bang or a whimper. The exact cultural significance of this information is debatable, but at the very least, it makes great fodder for cocktail party conversation. Through fairly graphic re-creations and surprisingly descriptive

accounts, viewers learn the grisly details of the deaths of George Washington, Sigmund Freud and Wild Bill Hickok, among others. These accounts are then either debunked or confirmed by experts such as Dr. Sherwin Nuland, author of "How We Die," and Dr. Lenore Barbian, curator of the National Museum of Health and Medicine."

— *Variety*, December 22, 2003 "Wars often produce advances in medicine and the Army Medical Museum was one product of the Civil War. Dr. William Hammond, the surgeon general during the Civil War founded the museum, now known as the National Museum of Health and Medicine, to gather lessons on battlefield surgery as the French and British did after the Crimean War, according to Chief Archivist Michael Rhode. The museum has opened a new exhibit at their Walter Reed Army Medical Center location entitled, "Battlefield Surgery 101: from the Civil War to Vietnam." The display includes photos and medical artifacts from the Civil War, the Russo-Japanese War, both World Wars, Korea and Vietnam. Jim Connor, assistant director of collections, said Vietnam was where the museum's photo collection ended. The first photo is a staged one from the Civil War showing a surgeon operating outside on a patient. Connor said the Civil War was where organized care for wounded Soldiers first began. Wounded Soldiers were removed from the battlefield and taken to aid stations and then on to hospitals, in much the same manner as today. The only differences are the medical knowledge and technology. "We picked the photographs on display because they cover roughly 100 years of military surgery, as well as illustrate interesting components of military medicine over that timeframe," Rhode said...There are even a few jarring color photos such as a lacerated liver and a leg blown off by a mine. "We can display things that other museums can't," Connor said. "The Smithsonian couldn't do what we have done." The photos also depict the history of radiology. There are photos of X-ray machines from the Turkish-Bulgarian War and portable units from World War I. One World War I era photo shows a technician using an early X-ray tube on a patient in a crowded ward and no lead aprons or other safety devices.

— *Pentagram*, December 5, 2003

"The National Museum of Health and Medicine's new exhibit of just over 100 photographs and accompanying objects spans about 100 years from the Civil War to Vietnam and deals with surgery on or near the battlefield. It reveals the evolution of the military operating room and the challenges of the men and women who work there. Drawn exclusively from the extensive holdings of the National Museum of Health and Medicine of the Armed Forces Institute of Pathology, "Battlefield Surgery 101" examines the breadth and depth of military surgical activities. Many of these images and films are being displayed for the first time. In selecting photographs, the exhibit's curators present realistic perspectives of the danger and challenges facing both fighting soldiers and the men and women whose duty it is care for them when they are in harm's way. Artifacts that range from medic's supplies and kits that span the twentieth century, prosthetic limbs, and surgical equipment enhance the exhibit. The exhibit is scheduled to open in mid-October 2003 and run indefinitely. For more information, please call 202-782-2200 or visit the museum at www.washingtondc.museum."

— *The Association of Military Surgeons of the United States Newsletter*, Fall 2003

"The National Museum of Health & Medicine, in Washington, displays seven tiny pieces of President Lincoln's skull, a lock of his hair, the bullet that killed him and casts of his hands made after the election of 1860. One hand is swollen from several days of shaking voters' hands. "Glimpsing that, you can see this mortal person made immortal," says Adrienne Noe, the museum's director. Her museum also displays the amputated leg of Civil War Maj. Gen. Daniel Sickles. He donated it just after losing it at the battle of Gettysburg in 1863. Until his death in 1914, he often visited it at the museum."

— *Wall Street Journal*, November 21, 2003

"A mineral powder that stops wounds from hemorrhaging. A bandage made of shrimp shells that seals cuts. Miniaturized ultrasound machines for instant diagnosis. These and other medical inventions being used on battlefields in Iraq and Afghanistan no doubt will be available in coming years in an ambulance or emergency room near you. They will join innovations from previous wars, such as anti-malarial drugs and various antibiotics, that we have come to take for granted...QuikClot is on display along with other artifacts from 20th- and 21st-century military conflicts in an exhibit open to the public at the National Museum of Health and Medicine at Walter Reed Army Medical Center, 6900 Georgia Ave. at Elder Street NW."

— *Washington Times*, November 20, 2003

" Steven Solomon, a spokesman for the National Museum of Health and Medicine in the

Walter Reed Army Medical Center off Georgia Avenue (www.wramc.amedd.army.mil), says visitors to his museum have been inconvenienced by increased security measures, but he doesn't think attendance is suffering significantly. The health museum gets about 50,000 to 60,000 visitors a year, Solomon says, mostly people affiliated with the military, health care professionals, school groups and academics. "Those who have a genuine interest, they find a way," especially scholars and academics, who come to the museum for its rare collections, Solomon says. "We could be in Timbuktu and they'd find us."

— *Washington Business Journal*, November 3, 2003

"Visit the offbeat and little known museum, the National Museum of Health and Medicine, part of the Armed Forces Institute of Pathology at Walter Reed Army Medical Center. It's home to lots of medical oddities, including the actual pistol ball that killed President Abraham Lincoln, and displays of leeches, kidney stones, deformed skeletons, etc. They have the world's largest collection of microscopes, various battlefield-related medical equipment, and much more."

— *Globe Trekker*, October, 2003

"Got some free time and a, um, feel for science or medicine? The National Museum of Health and Medicine at Walter Reed Army Medical Center is recruiting volunteers for its docent training program. You'll want two hands free — one to turn in the application by Jan. 1 and the other to grip a real human brain, once you're a docent, along the Human Body Tour. Brains are among the soft tissue samples available for docents and visitors to handle; diseased tissues remain encased in jars. The museum's collection dates from the Civil War, when Surgeon General William Hammond gathered specimens of morbid anatomy from the battlefield and war hospitals. His research helped lead to the discovery that 400,000 Civil War deaths resulted from illness and disease — twice as many as from battle wounds, said Kathy LaPlante, manager of the training program. — *Washington Post*, October 14, 2003

"'From Conception to Birth' at the National Museum of Health & Medicine — Through August 29. Consider this exhibit a mondo high-tech version of those film strips you watched in 7th grade health class. Indeed, this is the birds and the bees for the MTV generation...and their parents. In 'From Conception to Birth,' you'll see high-tech images of a growing bambino and videos on human development, among other attractions. This is definitely a don't-miss before it closes August 29 at one of the planet's funkier museums, the National Museum of Health & Medicine (6900 Georgia Ave. NW, 202-782-2200). FREE. www.natmedmuse.afip.org."

— *Washington Flyer Entertainment, Dining and Travel News*, August 21, 2003

"Sperm cluster like autograph seekers around a star-quality egg. New cells divide and multiply. By day 44 a spinal column has appeared, and a beating heart; soon come ears to hear it. Welcome to ourselves, as we've never seen us before, from Conception to Birth. If you're not already a fan of scientist and artist Alexander Tsiaras's recent book, this first-hand look, on view at the National Museum of Health and Medicine, ought to do it. Starting with the human embryo's earliest stages of development, more than 80 images reveal shapes and patterns of growth from never-before-seen angles, in what's been called an extraordinary marriage of fine art and cutting-edge medicine. How was it done? Break-through medical imaging technologies helped, as did access to the museum's Carnegie Human Embryology Collection, an invaluable resource focusing on the first eight weeks of life. Tsiaras then used unique scientific visualization software to "paint" an amazing harvest of views. If your clearest look inside a womb has come courtesy of a sonogram, prepare yourself for the next generation: colors of remarkable richness and subtlety, maximum clarity, and a breathtaking wealth of detail. You can also test your prenatal know-how at an interactive display. And don't miss the ten-minute video, which offers a trip through the liveliest nine months in town."

— *Museums Washington*, Spring/Summer 2003

"The first 2 months of pregnancy are when a human embryo takes shape. The Virtual Human Embryo project at Louisiana State University in Baton Rouge is creating a digital atlas for each of the 23 stages of this formative period. Each atlas is a database featuring computer-processed images of sectioned embryos from the Carnegie Collection, amassed over the last 115 years by the National Museum of Health and Medicine in Washington, DC. The Web site provides working databases for two stages, 10 and 12. You can summon 3D reconstructions of the delicate embryos, flip through cross-sections, and study labeled structures. Above, developing blocks of muscle are visible along the back of this stage-10 embryo. Three completed databases can be ordered on CD or DVD for the cost of shipping,

and the team plans to make all 23 available online as they are finished over the next 4 years. One objective is to encourage researchers to reexamine human embryology, says co-principal investigator John Cork. Much of what's in the textbooks was extrapolated from animals and is sometimes wrong, he says. virtualhumanembryo.lsuhscc.edu."

— *Science Magazine*, April 11, 2003

"For 115 years, thousands of embryos that were lost in miscarriages have been preserved for study at the National Museum of Health and Medicine of the Armed Forces Institute of Pathology in Washington. Now, in an effort to make the embryos, known as the Carnegie Collection, accessible to students and scientists all over the world, scientists at Louisiana State University are translating some of the 7,000 embryos to digital. The goal of the project, called the Virtual Human Embryo, is to put together thousands of detailed images from the collection on a series of DVD's and CD-ROM's, which can be ordered from the project's Web site, www.virtualhumanembryo.lsuhscc.edu, at only the cost of shipping and handling. Human embryo development is divided into 23 stages over eight weeks; after that point, the embryo becomes a fetus with distinguishable human features. "Essentially, at least one embryo from each of the 23 stages is serially sectioned into multiple slices and a computer captures digital images of each slice under a microscope," said Dr. Raymond F. Gasser, a cell biologist and anatomist at the Louisiana State Health Sciences Center at New Orleans who leads the project. The images are electronically enhanced and stitched together with corresponding sections to recreate the embryo digitally. Doing this for an embryo from Stage 1, a one-cell zygote, is fairly simple, Dr. Gasser said. But a Stage 23 embryo, which is a little over an inch long, requires roughly 3,000 sections - an arduous task. The program lets users manipulate colorful three-dimensional reconstructions of the embryos, zoom in and out of the embryonic tissue, and find specific parts of the embryos"

— *The New York Times*, March 25, 2003

"With exhibits ranging from the disturbing to the sublime, the National Museum of Health and Medicine houses a diverse collection of medical artifacts, tools, and body parts. Established in 1862 to study diseases and injuries from the Civil War, the Museum has amassed a collection so vast only one percent of it can be displayed in its 15,000 square feet of gallery space. Highlights include skull fragments and the assassination bullet retrieved from Abraham Lincoln's skull; a brain attached to spinal cord, suspended in formaldehyde; and the Visible Human Project, which displays cross sections of the body on computer. Before you go: If your family is game, there is no better place in the Washington area to view these medical marvels."

— *Washington Families Magazine*, February 2003

"The National Museum of Health and Medicine in Washington, DC has one of the world's largest collections of human specimens, some of which are currently exhibited in the "From Single Cells. . . Human Reproduction, Growth and Development" display. This exhibit includes fetal specimens. Museum Public Affairs Officer Steven Solomon says their human specimen exhibits receive positive feedback. "Visitor surveys recently commissioned by the museum demonstrate that members of the general public consider the display of human tissue, including pathological and fetal, to be acceptable and appropriate," Solomon stated. He says the issue is not the display itself but the educational context for their display. "As a professional, scientific institution, it is our duty to help enhance and shape the natural curiosity of visitors into a unique and inspirational learning experience," he said."

— *Oracle (Hamline University College of Liberal Arts)*, February 12, 2002

"Nearly 70 attendees received a crash course in forensic pathology and Civil War medicine and history Jan. 9 when they attended Paul Sledzik's lecture on "Bones, Bodies and Bullets," sponsored by Fort Detrick and the National Museum of Civil War Medicine. A forensic anthropologist and curator of the anatomical collections for the National Museum of Health and Medicine, Sledzik regaled the crowd with tales of Civil War wounds, of bone injury basics and of myths the museum has put to rest. Founded in 1862 as the Army Medical Museum that was to house a medical history of the Civil War, the museum is full of specimens field military surgeons sent in, along with their surgical reports. "What's neat about them is that we know the name of every soldier and the battle they were injured in. We have all the original hand-written surgeon reports...and we can go into our archives and get the photographs of some of these guys, so it forms a nice, comprehensive set of information about Civil War medical history," Sledzik said. That's one reason the museum was created: to answer why two soldiers with similar injuries had different outcomes. By having the records, it let surgeons look at the differences in medical treatment and which

provided the best survival rate. Bones, too, have stories to tell. "We look at skeletal remains of Civil War soldiers to see what we can learn from them," Sledzik said. "Because we know (from the medical records) for all these guys the day they were injured and the day they died, ... we can actually look at the change on the surface of the bone after a week, two weeks, three weeks. We take that information and apply it back to unknown forensic cases where you have bony change and you want to make an interpretation on it." Their research isn't just for research's sake, however. The data forensic pathologists gathered from looking at bone trauma has been used in child abuse cases to determine how long ago an injury occurred. "These guys help us make those interpretations," he said, referring to the 2,000 skeletons housed at the museum on 16th Street in Northwest Washington. Because of the number of remains there, the museum regularly hosts guests who want to visit the remains of their ancestors. In fact, Union Maj. Gen. Daniel Sickles, who, according to legend, packed his own amputated lower leg during the battle of Gettysburg and sent it to the museum with his calling card later, visited his limb at the museum after the war. The skeletons have also advanced today's technology..."

— *Fort Detrick Standard*, January 23, 2003

"Whether (Maj. Gen. Dan) Sickles almost single-handedly lost or won this crucial battle of the Civil War is a point that historians debate to this day. Either way, he made a great sacrifice, for Sickles also had his lower leg shredded by a cannonball at Gettysburg. But the leg's amputation - bad luck for most bipeds - apparently served Sickles well. Among other things, it probably saved him the disgrace of a court-martial for disobeying orders. The wound also enhanced his reputation as a war hero. True to his flamboyant form, he donated his lost leg to an army medical museum (now the National Museum of Health and Medicine) and courted women by escorting them there to see his disembodied bones."

— *Antiques Roadshow*, January 13, 2003

"A brain museum on the Web? You'll find it at www.brainmuseum.org. Check out images and information from the world's largest collection of the brains of mammals. Download photos of brains for everything from kangaroos to seals, camels and bats (not to mention people). Learn about brain function, brain development and "brain architecture." This intriguing site is a cooperative venture of the University of Wisconsin, Michigan State University, the National Museum of Health and Medicine and the National Science Foundation."

— *Gainesville Fla. Sun*, January 6, 2003

Also, in 2003 the Museum's staff met with and/or was interviewed by media representatives for stories or documentaries on:

- "CBS News Sunday Morning"
- CNN
- *Discover Magazine*
- "Discovery Travel"
- "Gallileo"
- German Public Television
- History Channel
- KRTC-FM, KNBC (Nebraska)
- LMNO Cable Group/Discovery
- *National Geographic*
- *National Geographic Explorer*
- National Public Radio
- *Tactical to Practical*
- Teaching Learning Channel
- WJLA-TV 7 (Washington, DC)
- WKQZ-FM, WTRX-AM (Michigan)
- WPFW-FM (Washington, DC)
- WTOP-AM (Washington, DC)
- WTTG Fox TV News (Washington, DC)

Museum Newsletter

The Museum's newsletter, "Flesh and Bones," was published during 2003, with a circulation slightly larger than in 2002. In addition to being distributed internally to the departments of

the AFIP, the newsletter was mailed to the Museum's mailing list, which includes the media, schools, libraries, and visitors who have signed up to receive information by mail. It contains articles that are researched and written by the Museum staff, about new exhibits, special programs, recently acquired artifacts, loans to other museums, etc.

The World Wide Web

The Museum Public Affairs Office expanded content on the Museum website to include information about new exhibits, such as "Research Matters: A GI Journey," based on work by the AFIP's Dr. Leslie Sobin. In addition, the Museum posted information about accomplishments of the Museum's staff called *Staff on the Go*. The Museum's site was also linked to other museum and tourism websites. *Web Trends* reported that the website averaged more than 16,000 hits daily, an increase of about 10,000 hits daily over 2002, and the average unique viewer looking at 4 different pages for nearly 9 minutes during each visit to the website. The Museum ensures accurate and timely information is provided to online website information resources and is currently linked from 212 other sites.

PUBLIC PROGRAMS AND EXHIBITIONS

The division directs and coordinates operational and interpretive components of the Museum. This includes administration, exhibitions, public programs, educational tours, facilities use, and related activities. Division staff worked with governmental agencies, professional associations, museums, and individuals to develop interpretive strategies that promote greater public awareness of contemporary and historical perspectives on disease, public health, and health education.

STAFF

Administrative

James Carey Crane, Exhibits Manager
 Jeffrey Mitchell, MA, Visual Information Specialist
 Janet Melson Burns, MA, Public Programs Coordinator
 Kathy LaPlante, Tour Program Manager
 Sandra V Saluke, MAT, Educator

Docents

Sal Battiata, MD; Ed Beeman, MD; Catherine Bonomo, BS; Edward Byrde, BS Ph; James DePersis; Ira Green, MD; Marjorie Hughes, MD; Regina Hunt, MEE; Marianne Jessee-Folfronk; MS, LaVerne Madancy; MA, Kay McMahon, BS; Richard Mulvaney, MD; Colleen Pettis, MA, MS; Anne Pollin; Anthony Rondello; Enid Rosen, BS; Christian Sepulveda, AS; Shen Sung, MD, Stephen Schiaffino, PhD; Carolyn Whittenberg, MSN and Alan Winshel, MD

Volunteers

Kara Cromwell, Michael Mendelson

PUBLIC PROGRAMS

This year marked the third year that the Museum collaborated with Health Pact, Inc, a local nonprofit company that assists community organizations by securing medical personnel, community groups, and medical supplies to perform certain medical screenings at health fairs, to present "National Health Awareness Kickoff." This series of programs held the first Saturday of each month acknowledges and explores health awareness issues. Medical professionals provided in-depth information on the selected health issue of the month and provided free health screenings for Museum visitors interested in the state of their health. This program continues to be an important part of the Museum's ongoing programs.

Programming presented in February in conjunction with the exhibit, "Human Body, Human Being", included "Women Hearts", a program that featured a health play, personal stories by two heart disease survivors and a discussion on heart disease in women by a medical professional. The play, entitled "Helen and Hilda," featured Cheryl Beversdorf, RN (who wrote and produced the play) as a middle-aged survivor of heart disease who recounts her struggle with the disease to a former college roommate. Virgie Harris-Bovelle and Ronni Posner, PhD, presented talks about their personal experiences surviving heart disease. Mary J. Rohrer, MD, a cardiologist at WRAMC lectured about heart health and highlighted symptoms and indicators of heart disease in women.

In March, the Museum presented "Get in Touch with Your Sense of Smell", a program that celebrated the olfactory system and the important role it plays in our everyday life. This annual program was designed to allow children and adults opportunities to explore the olfactory

system and how it works through lots of hands-on activities and presentations. Richard L. Doty, PhD, professor and director of the Smell and Taste Center at the University of Pennsylvania School of Medicine, Pamela Dalton, PhD, and other staff of the Monell Chemical Senses Center presented lectures and demonstrations that further described and examined the olfactory system for Museum visitors.

In May, a 2-hour program entitled "Exercise for a Healthy Skeleton" was presented. This program was designed to allow younger audiences the opportunity to explore the human skeleton and its functions, as well as learn what to eat to help strengthen bones and ways to keep them healthy through exercises. This program was also designed to fulfill the requirements for the Junior Girl Scouts' Fun and Fit badge.

"In the Gulf: Confronting Health and Medical Concerns", a military medicine program, was presented in June. This program provided the audience glimpses of the cultural and environmental differences in the Persian Gulf region; personal struggles of enlisted personnel facing emotional, environmental, health and medical issues; and health and medical services provided to military personnel at a time of war. Lt Col Kondi Wong, MD, Chief, Division of Neuromuscular Pathology at the AFIP, Penny L. Rodriguez, executive assistant to the director of AFIP and executive administrator of field operations at AFIP were speakers.

In October, the Museum presented "Learning About Forensics", a day-long program that revealed how forensic science plays an increasingly larger role in the medical profession, scientific laboratories, law enforcement, and people's daily lives. Paul Sledzik, the Museum's curator of Anatomical Collections, Maj Michael E. Smith, MC, USA at the Office of the Armed Forces Medical Examiner, and Kimberly Murga, supervisory DNA analyst of the Armed Forces DNA Identification Laboratory provided biographical information, defined the special work that they do, and described specific cases or events in which they have been personally involved. This program also included two "Forensics Mystery" workshops that allowed children and adults to participate in hands-on activities designed to gain a better understanding of forensic science. The participants closely examined replicated skeletal remains, dental evidence, and fingerprints to determine to whom, among the list of missing persons, these remains belonged.

Collaborations

The NMHM collaborated for a fourth year with Dana Alliance for Brain Initiatives, Walter Reed Army Medical Center's Head Trauma Department (WRAMC), and the National Institutes of Health in a six-day celebration of "Brain Awareness Week 2003" in March. A special component of the program was designed and implemented specifically for high school students. Because of the program's expansion, 1200 students from Washington, DC, Maryland and Virginia had the opportunity to participate in lectures, activities and opportunities to interact with local neuroscientists. Students also got to see, touch and learn all about the human brain. Neuroscientists, medical professionals and technicians, and educators from the National Institutes of Health, AFIP Division of Neuropathology and Neuromuscular Pathology, WRAMC Department of Head Trauma partnered with NMHM and Dana to present lectures and hands-on activities for elementary, middle and high school students. Catherine Sasek, PhD, of the National Institute on Drug Abuse (NIDA) of NIH; Denise Pintello, PhD of NIDA of NIH; Anna Staton, PhD of NIDA of NIH; Dennis A. Twombly, PhD of National Institute on Alcohol Abuse and Alcoholism (NIAAA) of NIH; Roger Sorenson, PhD of NIAAA of NIH; Vishnu Purohit of NIAAA of NIH; Michael Rosenthal, PhD of the National Institute of Mental Health (NIMH) of NIH; Lisa Moy Martin and Alice Marie Stevens with the Head Trauma Department at Walter Reed Army Medical Center; NMHM's Archie Fobbs, curator of the Neuroanatomical Collection and Surinder Sandhu, PhD assistant curator of the Neuroanatomical Collection presented lectures, hands-on activities and technical demonstrations that highlight various brain functions or disturbances. Over 600 students participated in this the 6-day program.

The Museum partnered with the National Kidney Foundation of the National Capital Area for the second year in March to present "Project Prevention," a screening and education program designed to help individuals determine their risk for the development of kidney disease and screen for potential problems.

Teacher Workshop/Open House

Local area teachers and educators received a special preview of a guided tour that school students receive at the Museum. Museum staff members Adrienne Noe, Paul Sledzik, Elizabeth Lockett, and Jim Connor discussed ways that the Museum's collections are being used to help teachers address curriculum requirements in the classroom.

Tour/Docent Program

The Museum's docents continued to offer general guided tours on the weekend to walk-in

visitors on the second and fourth Saturday of each month. In addition to the general tour, which introduces visitors to the highlights of the exhibition galleries, the following Curriculum Connection tours were offered during 2002: "Human Body, Human Being" and "To Bind up the Nation's Wounds: Medicine During the Civil War." The "Forensics Mystery" workshops continue to be popular hands-on activities for students, families and adults.

Docents, Museum staff, and AFIP staff benefited from educational presentations made at monthly docent meetings. Elizabeth Lockett, and Bill Discher of NMHM Human Developmental Anatomy Center talked about the collection and the earliest imaging work done to provide information for scientific research in January. In April, Annette R. Anderson, MS, RHIA, administrator of the Department of Repository and Research Services of AFIP, provide Health Insurance Privacy and Portability Act (HIPPA) training for Museum docents as required by AFIP. George Wunderlich, executive director of the National Museum of Civil War Medicine, gave a tour of his museum in May that provided descriptions of battlefield medicine that was practiced during this period. In August Paul Sledzik, Museum curator, presented a lecture on the Disaster Mortuary Operational Response Teams and the work that it does gathering and analyzing forensic evidence to identify victims of mass disasters. In September, Leslie Sobin, MD, chief, Gastrointestinal Pathology and director of Scientific Publications at AFIP presented a lecture on Endoscopy and Imaging of the Gastrointestinal Tract. In October, the docents view the film, "History of Battlefield Medicine" which was produced by the History Channel as part of its Modern Marvel series. This film provided an introduction to the exhibit, "Battlefield Surgery 101: From the Civil War to Vietnam" before its opening in November 2003. Mary Lou Luff from the Montgomery County Historical Society performed a first-person re-enactment of a 17th century homemaker describing treatment of illnesses and diseases using "Home Remedies from the Civil War Era".

EXHIBITIONS

Research Matters Exhibit

"Research Matters" is a permanent presence but changing exhibit established in 1986 to inform visitors of recent contributions by AFIP research to US military medicine and to public health. "Research Matters: A GI Journey" describes the nearly 2,000 year history of endoscopy, new technological advances in the field, and highlights the work of AFIP's Division of Gastrointestinal Pathology. "This exhibit is unique," said Leslie Sobin, MD, chief of AFIP's Division of Gastrointestinal Pathology and director of Scientific Publications. "It takes the mystery out of the process, while, at the same time, documents the historical development of medical technology." The exhibit features 10 traditional endoscopes borrowed from the Museum's more than 12,000 historical medical objects. The exhibit also includes several photographs and diagrams of the inner-workings of the new M2A "pill endoscope," as well as a video that illustrates endoscopic examination and endoscopic biopsy procedures. The M2A Capsule allows physicians to see parts of the small intestine that older conventional methods do not. Although it is the size of a pill and weighs less than 4 grams, the M2A consists of a light, camera, power source, and transmitter. The capsule-encased camera records two photographs per second for up to 8 hours, until it is excreted. Up to 50,000 images can be recorded on the pack worn by the patient, which are then downloaded onto a computer and analyzed by physicians. Given Imaging, Ltd. donated a capsule to the Museum in March 2003. AFIP pathologists continue to research the possible uses and advantages provided by advancements in endoscopic technology. A widely read AFIP publication is the "Atlas of Gastrointestinal Endoscopy and Endoscopic Biopsies." Photographs from this atlas are the source of much of the current exhibit's illustrations.

Temporary Exhibits

"Battlefield Surgery 101: From the Civil War to Vietnam" illustrates how the military operating room changed and improved from the Civil War (1860s) to Vietnam (1960s). More than 100 photographs and 19th- and 20th-century artifacts drawn exclusively from the Museum's historical archives and historical collections demonstrate the military operating room's evolution over the past 140 years and the challenges faced by the men and women who worked there. Recent medical advances are also on display, which are now being used by the US military to treat serious wounds in Iraq, Afghanistan and at WRAMC. The exhibit includes a video that focuses on how the helicopter drastically changed military medical care by transporting wounded soldiers more quickly during the Vietnam War, and how it later became an essential part of civilian trauma care. The exhibit's curators are Museum staff members Jim Connor and Michael Rhode. Rhode and Connor worked extensively with US Army Col David Lounsbury, MD, and Director of the Borden Institute, and retired US Army Col Ronald Bellamy, MD, Military

Medical editor at the Borden Institute, to develop the exhibit's themes and structure. The Borden Institute, also located on the campus of WRAMC, produced a catalogue to accompany the exhibit featuring additional information about military surgery.

Additions

Artist Carolyn Henne, a major American figurative artist of Richmond, Va, contributed her installation "Suspended Self-Portrait" to the Museum's "The Human Body, Human Being" exhibit. Henne fitted the internal information from the Visible Human female dataset to her own corresponding cross sections. She then painted the sections of onto 89 long sheets of clear vinyl and hung them about an inch apart from an aluminum frame. It enhances the artifacts already on display by providing a detailed look into the interior of the body. The fact that the piece was created using the Visible Human Dataset gives visitors an idea of the real-life application of scientific study and shows that this information is valuable and inspiring beyond the medical arena. The VHP can be further examined at a computer station in the "Human Body, Human Being" exhibit.

DEPARTMENT OF COLLECTIONS

The Collections Department of the NMHM preserves materials representing the broad subject areas related to the history and practice of American medicine, military medicine, and modern medical and health issues and research. Each collecting division specializes in different media and subject areas. The division's responsibilities are to (1) provide the highest level of professional care for the NMHM collections and their associated documentation; (2) collect objects, specimens, and related archival materials deemed significant and relevant to the mission of the NMHM; and (3) support research, exhibits, and public programs through access of collections. All collections areas within the Museum are collaborating to make use of AFIP/ARP Cooperative Registry Enterprise funding in order to develop an automated collections management and inventory tool.

Anatomical Collections Staff

Paul S. Sledzik, MS, Curator

Lenore Barbian, PhD, Assistant Curator

Anatomical Collections collects and preserves human and nonhuman medical, pathological, and anatomical specimens and associated materials documenting normal anatomy and the response to disease and injury.

Historical Collections Staff

James T. H. Connor, PhD, Assistant Director for Collections

Alan Hawk, Historical Collections Manager

Donna Quist, Assistant Historical Collections Manager

Gloria Feeney, Volunteer

Historical Collections collects, preserves and documents the material culture of healthcare, with an emphasis on military medicine. The collection is made available to both civilian and military researchers as well as for exhibits and loans to other institutions. Approximately 13,000 artifacts are included in the collection that documents the history of medicine from the 17th century to the present.

Nearly 200 artifacts were added to Historical Collections. Mr. John Listman donated a medic's bag used by the 986th Air Ambulance Detachment, Virginia Army National Guard during the Persian Gulf War. He also donated headgear worn when he was the Medical NCIOIC at the China Beach R & R center during the Vietnam Conflict, which will accompany his medic's bag acquired by the Museum in 1995. Upon the closing of the old Dover Port Mortuary, Delaware in December, Historical Collections acquired an X-ray machine and assorted autopsy instruments used to identify soldiers and others killed in action, or through accidents of war and other circumstances. Walter Reed Army Institute of Research transferred an example of the new Golden Hour blood container as well as an example of the Armed Services Blood Program box it is intended to replace. Recent developments in wound treatment were documented by the acquisition of a Quick Clot Adsorbent Haemostatic Agent package and a Hemcon (chitosan) bandage. CAPT (ret) Glenn Wagner, former AFIP director, donated his flyaway kit when he headed aircraft accident recovery and identification missions with the Aerospace Pathology Division. Numerous artifacts, including a large autoclave, used in biological warfare research programs at Ft Detrick, Maryland were also acquired.

In April, Dr. Manuel del Cerro of Pittsford, NY announced his intention to bequeath his

collection of 500 microscopes to the Museum's microscope collection. This collection, the biggest addition to the microscope collection since the donation of Dr. A.J.W. Kaas of Oude Niedorp, Netherlands in 1965, will include numerous examples of 20th century microscopes from manufacturers and countries not currently represented in the existing collection. When completed, this acquisition ensures that the Museum microscope holdings will continue John Shaw Billings' vision for a comprehensive collection documenting the development of the microscope from Antoni van Leeuwenhoek and Robert Hooke in the 17th century through to the present day.

The exhibit Battlefield Surgery 101 was researched and co-curated by J.T.H. Connor and Michael Rhode. Collections assistance for the artifacts in this exhibit was provided by Alan Hawk and Donna Quist. Historical Collection artifacts were also used to illustrate the history of endoscopy for the exhibit "Research Matters: A G.I. Journey" and history of military medicine for "Battlefield Surgery 101." This Research Matters exhibit was curated with collections assistance from Donna Quist.

Historical Collections loaned artifacts to the US Army Center of Military History-sponsored traveling exhibit, "Beyond Lewis and Clark, the Army Explores the West." The exhibit, which will be displayed in Virginia, Washington, Kansas and Missouri, featured a mid-nineteenth century medicine chest and the pocket surgical kit belonging to George Lord, Regimental Surgeon of Custer's 7th Cavalry at the Battle of Little Bighorn. Additional artifacts were loaned to the following museums: The Strategic Air And Space Museum, National Library of Medicine, the Richmond National Battlefield Park Service and The Cincinnati Museum Center. Photographs of microscopes from the Billings Microscope Collection provided the basis for the ARP/AFIP 2004 calendar. The calendar was produced with the assistance of Historical Collections personnel. Artifacts from the collection appeared in the History Channel documentary "JFK: The Presidency Revealed".

Deployment:

Alan Hawk, Historical Collections Manager, was on active duty with the US Navy Reserve in support of Operation Noble Eagle. He returned to the Museum on September 28, 2003.

OTIS HISTORICAL ARCHIVES

Archives Staff

Michael Rhode, Chief Archivist
Tabitha Oglesby, Assistant Archivist
Gloria Feeney, Volunteer

The Archives was successfully moved from temporary office space on the first floor and returned to M-018 with no losses or damages to the collection, or injuries to staff and re-opened in early January. Oglesby returned from maternity leave in the first week of March. Gloria Feeney finished working on organizing photographs transferred from the National Library of Medicine, arranged a collection of medical trade literature donated by Dr. Rabkin, and is currently arranging AFIP photographs transferred from the photography division. The major curatorial project was the exhibit "Battlefield Surgery 101," based on the OHA's photograph collections. Working with COL David Lounsbury, head of the Borden Institute, and Dr. Ronald Bellamy, the exhibit of over 100 photographs opened in the fall, and was soon followed by a catalogue produced by the Borden Center.

Substantial requests for information were handled, frequently regarding sensitive topics. The Vorwald Collection continues to be used for research for asbestosis lawsuits in spite of being open to the public for nearly two decades. Interest in the 1918 influenza epidemic has not yet peaked, and many requests were received to use images from the Archives, all of which are viewable on the website to facilitate research. Records on AFIP history have been provided throughout the year as required including historical posters and images for the Director's office. Research, mostly on military medicine, was conducted by or for 24-7 EMS, AEF Battelab, Abraham Lincoln Presidential Library and Museum, Burns Archives, Chelsea House Publishers, Columbia College of Physicians, Editions Palantines, Engle Brothers Media, Enslow Publications, Environmental Profiles, GSW publishers, George Mason University, George Washington University, Glasshead Ltd., Goldfein and Hosmer, Granada Television, Harvard Divinity School, Hoggard Films/National Geographic, Homeland Protection Professional, Indiana University, Indiana University School of Medicine, Institut für Geschichte und Ethik, Institute of Surgical Research, Johns Hopkins University, MODULU, Marshall Cavendish

Publishers, Maryland Historical Trust, Microscope Society of America, National Library of Medicine - History of Medicine Division, Penguin/Putnam, Ripley Entertainment, Rosen Publishing Group, Smithsonian's National Museum of Natural History, St. Francis University, Stryker Trauma, PBS's Thirteen/WNET, Timeline/Ohio Historical Society, Toronto Life magazine, Trine and Metcalf law firm, USCAP, University of Redlands History Dept., University of Arizona, University of Colorado, University of Mississippi, University of California - Santa Barbara, University of Maryland, Viking/Penguin, Weitz and Luxenberg, Wills Eye Hospital Department of Pathology, and the Yale University School of Medicine.

With the support of the AFIP/ARP Cooperative Enterprise Registry, computerized cataloguing on the collection level has continued in the shelf inventory and in other collecting areas. Cataloguing for the General Medical Products Information Collection, Medical ephemera, New Contributed photographs, audiovisual collection, AFIP Historical Files and others was done. Implementation of a comprehensive computer catalogue for the entire Museum began. Several collections were arranged and described with finding aids written for them including Rabkin's trade literature collected late in 2002. Oglesby is processing the Bahr electron microscopy collection due to an arrangement with the Electron Microscope Society of America (now simply the Microscope Society of America) to become the repository for electron microscopy records. New material was acquired included Osborne's Philippine Insurgency photographs and diaries, Reinhard's Korean War surgery records, Lucas' WW2 dental records, and Vietnam drug abuse audiotapes, also videotapes from the Presidio, photographs from AFIP's photography department, and books. Museum records from staff members were added to the archives. A significant Archives presence including the Guide to the Collections of the Museum on the website has become the main way researchers begin to use the archives, and several finding aids were added to the website. More archival collections were listed in the Library of Congress' National Union Catalogue of Manuscript Collections (NUCMC), ensuring wider researcher use of the collections. Rhode served on the AFIP's Institutional Review Board and HIPAA Committee. Minor assistance was provided for the AFIP 2003 calendar.

OFFICE OF THE REGISTRAR

STAFF

Michael Aurele Simons, MA

This office tracks incoming donations to the National Museum of Health and Medicine and well as tracking outgoing and incoming loans to and from other institutions and individuals, insuring these transactions are conducted under pertinent DoD regulations and accepted museum standards. The Registrar Office monitors collections storage facilities and exhibit spaces through the installation of a new ONSET environmental monitoring system and maintains the condition of the collection through daily, weekly and monthly inspections as needed. Conservation needs of incoming and outgoing loans are assessed with minor conservation treatments being performed as needed.

During 2003 Mr. Simons traveled to Michigan State University, East Lansing; The University of Michigan, Ann Arbor with the Curator of the Neuroanatomical Collections to procure two collections for the NMHM. He also oversaw the collection of objects from the dismantling of the biological weapons manufacturing facilities at Fort Detrick, Maryland and the former Dover Port Mortuary - Dover Air Force Base, Delaware. The Registrar Office hosted two summer interns provide by the Washington, DC Public Schools.

Accessions

There were a total of 66 accessions ranging from a single bandage to collections totaling over 400 separate objects. Individuals and institutions donating material to the Museum include National Library of Medicine; Alan and Mary Frame; Michael Rhode - Archivist, National Museum of Health and Medicine; Dr. Manuel del Cerro; Dr. Robert O. Thiele; Dr. William Cruce; Nils Osmar; Given Imaging, Inc.; Dr. Paul G. Bartels; Ms. Jean Simmons; College of Medicine, University of Tennessee - Health Science Center; Sol Pargement; Dorothy Smith; Dr. Robin A. Cooke; Dr. Alan I. Hecht; Col. William Clarke; Dr. Waldo R. Fisher; General Motors Corporation (GMC); Dr. Thomas M. Brown; Dr. Jack M. Layton; B. J. Shatinsky; John Listman; Dr. Steven Zehren; Dr. Herbert J. Quigley; Dr. Samuel Berkowitz; Dr. C. Miller Fisher; Naval Medical Center - Tissue Bank; Condomania; Wisconsin Veterans Museum; Robert and Nora Reinhardt; Charles Larrabee; Saint Michaels College; Sidney Weiser; Z-Medica; Matt Hunter; Lorenz Zimmerman; William Rodriguez - OAFME, AFIP; Hemcon; LtC. Francisco J. Rentas - WRAIR; Alexis Kobrin; Dr. Charles Mixter III; VernaCare; Walter Reed Army Medical Center;

Alan Hawk – Manager, Historical Collections, National Museum of Health and Medicine; Anne R. Ohlbaum; Dr. John I Johnson – Michigan State University; Department of Radiologic Pathology, AFIP; Dover Port Mortuary – Dover Air Force Base; Karen Russell; CAPT Glenn N. Wagner – Director, AFIP; Fort Detrick; Markus Ring; MicroscopePen.com; Nancy Bedell; Dr. John J. Eckberg

DEPARTMENT OF RESEARCH COLLECTIONS

The Research Collections support two anatomical areas: developmental and neuroanatomical. Their role is to acquire, preserve, and encourage the use of major research collections for all qualified members of the research community. Continued stimulation of new extramurally-funded hypothesis-driven research is the salient priority. The Human Developmental Anatomy Center has entered its 5th year of funding by the National Institutes of Child Health and Human Development, the National Center for Research Resources, and the Office of Research on Women's Health. The Neuroanatomical Collections continue to be the recipient of National Science Foundation funding for electronic collections development

Human Developmental Anatomy Center Staff

Elizabeth C. Lockett, Imaging Specialist/Collections Manager
William F. Discher, Imaging Specialist
Kumudini Mayur, PhD Imaging Scientist

Neuroanatomy Collections Staff

Archibald J. Fobbs, Curator
Surinder Sandhu, NSF Funded Project Technician
Stephen Schiaffino, PhD, Volunteer.

Tours

The HDAC and the Neuroanatomy Collections hosted 110 tours during 2003.

Education and Collections Use

A National Science Foundation Grant allowed the NMHM, in conjunction with the universities of Wisconsin-Madison, and Michigan State, to implement an innovative neuroanatomical website. The information presented reflects the mission of the Museum. Collection inquiries via the website increased 60 percent over those of 2002. Requests for collection images, scheduled visits to the collections division and to the Museum have all increased as well. Educators continue to report that the website is a useful curriculum development resource for science projects and for answering structural and functional questions about the brain. The website widely publicizes images and information about the existence, contents, and value of the brain collections. Via the Internet, information about sectioned brain specimens at the three institutions will be presented and promoted electronically on the Brain Collection home page <http://www.brainmuseum.org>, with additional information on ancillary sites. Four sites are interlinked; all can be reached from one another.

Extensive alphanumeric data from Museum collection specimens are used worldwide via Internet presentation. Interns with the Neuroanatomical Collections department are able to gain experience with this technique using software such as AMIRA; data and images from Museum collection specimens are made available for use in education at all levels. This is done via the Internet or via physical diskettes.

Magnetic Resonance Imaging (MRI) scans provide volumetrically and spatially accurate data about the internal architecture of brains of rare or difficult-to-process species of animals. The spatial data can be analyzed in 3-dimensional models. Student interns obtain scans of collections items using software such as Adobe Photoshop and Surf Driver, with which they commence 3-D modeling. The project has provided opportunities for training interns in the use of data storage, electronic imaging, and the acquisition of neuroanatomical data, including 3-dimensional surface render modeling.

The Neuroanatomical Collections were instrumental in providing educational experiences for students from Paint Branch High School in Silver Spring, Maryland, Holmes Middle School in Alexandria, Virginia, and The Thomas Pyle Middle School in Montgomery County, Maryland. The Howard County Technology Magnet Applications and Research Laboratory Program has partnered with Neuroanatomical Collections and the Human Developmental Anatomy Center to promote internships for high school students of Howard County. This relationship provides research opportunities for students attending the county's technical magnet programs at Long Reach and Paint Branch High schools in Columbia, and River Hill High School in Clarksville,

Maryland.

COURSES TAUGHT

The staff of the Anatomical Collections conducted the 16th annual Forensic Anthropology course at the Uniformed Services University of the Health Sciences from May 5 through 9, 2003. Participants numbered 54. Planning for the 2004 course was undertaken. The course will be held at the National Transportation Safety Board Academy in Ashburn, Virginia.

HDAC and other Museum staff: Embryology, Imaging and Education IV, May 2003.

Biology Instructors' Developmental Anatomy Teaching Skills Workshop (with Carnegie Institute of Washington and the Society for Developmental Biology), November 2003.

In March 2003, Paul Sledzik and Lenore Barbian served as laboratory instructors for the forensic anthropology component of the Forensic Identification and Emerging Technologies course sponsored by the Department of Oral and Maxillofacial Pathology. This course had 150 participants.

PRESENTATIONS

1. January 2003: Ft Detrick, Md, "Bones, bodies, and bullets: a forensic scientist's perspective on the Civil War," PS Sledzik.
2. February 2003: Chicago, Ill, American Academy of Forensic Sciences, "Fifteen years of forensic anthropology short courses at the National Museum of Health and Medicine/AFIP," L Barbian, PS Sledzik.
3. February 2003: Chicago, Ill, American Academy of Forensic Sciences, "Victim identification following the crash of United Airlines Flight 93," PS Sledzik, W Miller, DC Dirkmaat, JL deJong, PJ Kauffman, DA Boyer, FP Hellman.
4. February 2003: Chicago, Ill, American Academy of Forensic Sciences, "Roles of the biological anthropologist in the response to the Crash of United Airlines Flight 93," MR London, L Barbian, D Mulhern, PS Sledzik, DC Dirkmaat, L Fulginiti, JT Hefner, NJ Sauer.
5. February 2003: Chicago, Ill, American Academy of Forensic Sciences, Multidisciplinary Symposium, "The federal response to mass fatality incidents," PS Sledzik.
6. February 2003: Chicago, Ill, American Society of Forensic Odontology Annual Meeting, "Victim identification following the crash of United 93," PS Sledzik.
7. March 2003: Arlington, Va, National Science Foundation Women in Science Celebration Keynote, "Science and the museum," A Noe.
8. March 2003: Washington, DC, US/Canadian Academy of Pathology, Specialty Conference on the Pathology of War, "Civil War medicine," PS Sledzik.
9. March 2003: Washington, DC, US/Canadian Academy of Pathology, "A fighting chance: 'modern' medicine and modern warfare in the twentieth century," JTH Connor.
10. March 2003: Washington, DC, National Museum of Health and Medicine/AFIP, "Brain Awareness Week," AJ Fobbs, JM Burns, S Sandhu, S Saluke, A Noe.
11. April and September 2003: Ashburn, Va, National Transportation Safety Board Academy, Transportation Disaster Assistance Course, "Forensic identification," PS Sledzik.
12. April 2003: Washington, DC, Institute of Medicine, National Academies of Science, Workshop on the Medicolegal Death Investigation System, "Disaster Mortuary Operational Response Teams," PS Sledzik.
13. May 2003: Boston, Mass, American Association for the History of Medicine, "The business of disseminating homeopathic medical knowledge," JTH Connor.
14. May 2003: Washington, DC, National Museum of Health and Medicine/AFIP, Ethiopian Liaison Officer Presentation to the United States Embassy, Ethiopia, AJ Fobbs.
15. June 2003: Bethesda, Md, National Library of Medicine, Opening Ceremonies for *Visionary Anatomies*, "Envisioning anatomy in historical and sociological perspective," A Noe.
16. June 2003: Washington, DC, National Museum of Health and Medicine/AFIP, Presidential Classroom Group, AJ Fobbs.
17. June 2003: London, England, American Association for the History of Medicine and The Wellcome Trust Centre for the History of Medicine, University College Conference on Anglo-American Medical Relations: Historical Insights, "Curating America's premier medical museum: the legacy of John S. Billings to the professional and public understanding of medicine," JTH Connor, M Rhode.
18. June 2003: Washington, DC, National Museum of Health and Medicine/AFIP, National History Day Ceremonies, NMHM/AFIP staff.

19. July 2003: Washington, DC, National Museum of Health and Medicine/AFIP, National Youth Leadership Forum on Medicine Tour, AJ Fobbs.
20. July 2003: Washington, DC, AFIP Professional Staff Conference, "Curating America's premier medical museum: the legacy of John S. Billings to the professional and public understanding of medicine," JTH Connor, M Rhode.
21. July 2003: Manchester, England, University of Manchester, Society for the Social History of Medicine Conference on Innovating Medicine: Medical Technologies in Historical Perspective, "Tissues by sunlight: J.J. Woodward, biomedical science, and the convergent technology of photomicrography in Victorian America," JTH Connor.
22. August 2003: Arlington, Va, International Association of Flight Safety Investigators, Centennial Lecture, "The first aviation fatality," A Noe.
23. August 2003: Baltimore, Md, Westside Renaissance Breakfast, "A medical museum in Baltimore," A Noe.
24. August 2003: Germantown, Md, International Monetary Fund Summer Camp, Bretton Woods Recreation Center, AJ Fobbs.
25. October 2003: Kingston, Ontario, Canadian Science and Technology Historical Association, "Innovation, safety and 'risk' in Victorian culture: anaesthetic technology revisited," JTH Connor.
26. October 2003: Washington, DC, National Museum of Health and Medicine/AFIP, Howard Hughes Medical Institute Precollege Science Education Program, "Skeletons in cabinets: anatomical collections and forensic anthropology," L Barbian.
27. November 2003: Washington, DC, National Museum of Natural History, Guild of Natural Science Illustrators Meeting, "Photographing embryos," WF Discher, HD Morris.
28. November 2003: New Orleans, La, Society for Neuroscience, "Globus pallidus and substantia nigra form a contiguous 'extended pallidum' in brains of whales and dolphins (cetacea)," JI Johnson, RC Switzer III, KD Sudheimer, FM Ferreira, AJ Fobbs Jr., L Marino.

PUBLICATIONS

See the Cumulative Publications List for titles of 2003 publications by Museum staff.

COLLABORATORS IN RESEARCH AND EDUCATION PROJECTS

Anatomical Travelogue, Inc., New York, NY
 Carnegie Institute of Washington, Washington, DC
 Department of Anatomy, Michigan State University
 Department of Physiology, University of Wisconsin-Madison
 Department of Physiology and Physics, Howard University College of Medicine
 Division of Biology, California Institute of Technology
 Johns Hopkins University School of Medicine, Center of Magnetic Resonance Microimaging, Baltimore, Md
 Louisiana State University, Health Sciences Center, New Orleans, La
 National Institutes of Health, Nuclear Magnetic Research Center, Bethesda, Md
 National Institutes of Health, National Library of Medicine, Bethesda, Md
 Neuroscience and Behavioral Biology Program, Emory University, Atlanta, Ga
 Neuroscience Associates, Inc.
 Society for Developmental Biology, Bethesda, Md

PROFESSIONAL ACTIVITIES

Official Trips

1. May 2003, Boston, Mass, American Association for the History of Medicine, JTH Connor.
2. June 2003, "Anglo-American Medical Relations: Historical Insights," co-organized by the American Association for the History of Medicine and The Wellcome Trust Centre for the History of Medicine at University College of London, London, JTH Connor (self-funded).
3. July 2003, Society for the Social History of Medicine conference on "Innovating medicine: medical technologies in historical perspective," University of Manchester, JTH Connor (self-funded).
4. June 2003, "Anglo-American Medical Relations: Historical Insights," co-organized by the American Association for the History of Medicine and The Wellcome Trust Centre for the

History of Medicine at University College of London, London, M Rhode (self-funded).

Editorial Work

1. A Hawk (peer reviewer), National Historical Publications and Records Commission, Proposal Number: S346-DC, The Murray Bowen Audiovisual Collection, The Bowen Center for the Study of the Family, December 2003.
2. EC Lockett, A Noe, for Stephen Gilbert. "An Illustrated History of Embryology," in press.
3. EC Lockett, A Noe, for Alexander Tsiaras. "From Conception to Birth," New York, NY: Doubleday Press; 2003.

Exhibits and Exhibit Support

1. JTH Connor, M Rhode, JC Crane. "Battlefield Surgery 101: From the Civil War to Vietnam" exhibit, National Museum of Health and Medicine, Washington, DC, November 2003-indefinite.
2. L Barbian provided curatorial support for "Battlefield Surgery 101: From the Civil War to Vietnam."
3. EC Lockett, design and curation, "From a Single Cell" permanent exhibit on human development, NMHM, Washington, DC.
4. EC Lockett provided images and data for exhibition "from Conception to Birth" temporary exhibit of visualizations of human development from photos, MR and CT data. NMHM, Washington, DC.
5. EC Lockett provided images for exhibition "Changing the Face of Medicine. Celebrating America's Women Physicians," National Library of Medicine, Bethesda, Md.
6. M Simons, Registrar support. The Museum borrowed one object from WRAMC for exhibit purposes.
7. M Simons, Registrar support. The Museum loaned a total of 19 objects to 4 borrowers for exhibit purposes. Among these were loans to the Cincinnati Museum Center; the Virginia Historical Society; Strategic Air Museum; and the National Library of Medicine.

Collections Research Requests

Research Requests: 321

Researcher days: 572

Other Activities

The staff of the anatomical collections provided 18 lectures/presentations to school groups at the NMHM/AFIP and in the DC metropolitan area. They also provided support to the OAFME at Dover Port Mortuary for victim identification.

L Barbian analyzed a sample of skeletons from the Bulkeley Family Tomb report for the Office of the Connecticut State Archaeologist.

P Sledzik continued his involvement as a member of the board of directors of the Ellis Kerley Forensic Sciences Foundation and as a consultant to the National Center for Missing and Exploited Children. He also served as program chair for the Physical Anthropology section of the American Academy of Forensic Sciences.

Public Affairs Reports

1. Joseph Shapiro. Interview of Rhode for "Disabled Vets" for National Public Radio's "Morning Edition," May 26, 2003.
2. Hank Silverberg. Interview of Rhode and Connor for *Battlefield Surgery 101* for WTOP radio, November 28, 2003.
3. Dennis Ryan. Interview of Rhode and Connor for *Battlefield Surgery 101* for "A Cut Above," *Ft. Meyer Pentagon*, December 5, 2003.
4. Lee Bowman. Interview of Rhode and Connor for *Battlefield Surgery 101* for Scripps Howard News Service, December 2003, appeared in 15 newspapers and 1 television show.
5. Damon Adams. Interview for "Framing History: A Photo Collection Contains a Study of Our Medical Past," on Stanley Burns photograph collection in *AMNews* (December 8, 2003), online at <http://www.ama-assn.org/amednews/2003/12/08/prsa1208.htm>.
6. Numerous interviews with Connor for community newspapers concerning collections donations.